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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,375	03/30/2004	Mark L. Grabb	1412091C	4722
61604	7590	11/14/2007	EXAMINER	
PETER VOGEL			ROZANSKI, MICHAEL T	
GE HEALTHCARE			ART UNIT	
3000 N. GRANDVIEW BLVD., SN-477			PAPER NUMBER	
WAUKESHA, WI 53188			3768	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/813,375

Applicant(s)

GRABB ET AL.

Examiner

Michael Rozanski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-20 and 29-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-20 and 29-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6,28,04,8/24/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/15/07 have been fully considered but they are not persuasive. Applicant argues that the cited references do not disclose image data acquired prior to the positioning of the probe inside the body. Examiner disagrees because the amended portion citing "wherein the image data of the three-dimensional display is acquired prior to the probe being positioned inside the body" does not change the scope of the claims. Specifically, this portion is not structurally limiting. The structure of the memory, which is "coupled to the processor and configured to store image data pertaining to the organ or structure inside the body," is unchanged as there is no structured limitation required by the amended portion. Therefore, the previous rejection is maintained and made FINAL.

Newly added claims 33-40 are rejected for the reasons given below. In addition, note that there is a duplicate claim double patenting *warning* included. It is noted the Applicant has acknowledged the provisional double patenting rejection. However, the rejection is maintained, per MPEP 804.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

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F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 6-9, 11-22, and 29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12-24 of copending Application No. 10/749,424. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application includes an electrophysiology monitoring system comprising a processor communicatively coupled to a probe registered to the image, memory, and a display to display the 3D image pertaining to a heart and a representation of the probe. Further, the system includes a map of electrical properties of the heart. Therefore, anyone possessing the elements included in Appl No. 10/749,424 would also be in possession of elements of the currently claimed invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Applicant is advised that should claim 1 be found allowable, claims 14 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two

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claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). This warning is made because dependent claim 4 cites the organ being the heart.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 8-20, 29, 34-35, 37, and 39 rejected under 35 U.S.C. 103(a) as being unpatentable over *Willis et al* (US Patent 6,490,474) in view of *Zanelli* (US 6,515,657).

Claims 1-6, 8-20, 29, 34-35, 37, and 39: Willis et al. disclose a system for displaying a three-dimensional image of an organ inside the body, the system comprising:

a processor configured to be communicatively coupled to a probe, the probe being configured to be located in or adjacent to an organ inside the body and to collect data representative of the electrical properties of the organ (col. 13, line 60-col. 14, line 4);

memory coupled to the processor and configured to store image data pertaining to the organ inside the body (col. 17, lines 20-32), which may be displayed at a later time as historical data (col. 17, lines 33-42); and

a spatial three-dimensional display 124 coupled to the processor and configured to display a representation of the probe and a map (i.e. auxiliary data) of the electrical properties of the organ inside the body (col. 5, lines 11-16; col. 6, lines 37-47).

With regard to Fig. 1, a localization system 100 uses reference catheters 10 carrying a plurality of ultrasound transducers (i.e. medical imaging devices) to establish a 3D coordinate system for navigation, while allowing the positions of additional electrophysiological catheters 12-16 to be represented graphically on the user interface 124 (col. 5, lines 1-16). The system also may allow for image data to be acquired prior to the catheter 12-16 being inserted inside the body (col. 6, lines 21-35).

However, a 3D image and representation of the probe are not simultaneously displayed. In the same field of endeavor, Zanelli discloses superimposing an image of a catheter with a 3D ultrasound image of the heart (col. 4, lines 33-67). Zanelli teaches that the image of the catheter may be updated more frequently to show its current location, as the device is guided or repositioned within a patient. Zanelli also teaches of image registration used to register the position of a medical instrument with image data. There is no disclosure by Applicant what is meant by the term "weighted" except in para. [0024] where it is incorporated with registration. Thus, it is considered by Examiner that image registration inherently includes weighting of the images in the

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sense that registration includes maximizing image similarity by changing the transformation parameters.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have incorporated the teaching of Zanelli in order to allow medical personnel to perform procedures such as angiograms with minimal exposure of patients to x-rays (col. 4, lines 10-14).

6. Claims 30-33, 36, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Willis et al.* and *Zanelli* in view of *Acker et al* (US 6,332,089).

Claims 30-33, 36, 38, and 40: Willis et al. and Zanelli substantially disclose all features of the current invention but do not disclose a warning that functions to provide indication of the relative position of the probe. In the same field of endeavor, Acker et al. teach of a warning tone or visual indication (i.e. a change in color of the pre-operative image) upon occurrence of a disposition of the site probe and/or the reference probe (col. 13, line 51-col. 14, line 6). It would have been obvious one with ordinary skill in the art at the time the invention was made to incorporate the teaching of Acker et al. in order to provide more accurate information to a physician regarding the position the probes.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rozanski whose telephone number is 571-272-1648. The examiner can normally be reached on Monday - Friday, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR
MR

ERIC F. WINAKUR
PRIMARY EXAMINER